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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,191	01/21/2004	Kia Silverbrook	MPA30US	2068

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EXAMINER	
HSIEH, SHIH WEN	

ART UNIT	PAPER NUMBER
2861	

DATE MAILED: 07/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/760,191	SILVERBROOK ET AL.	
	Examiner	Art Unit	
	Shih-wen Hsieh	2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a): In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-9 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2 and 5-7 of U.S. Patent No. 7,077,505 in view of Silverbrook et al. (US 2005/015,7078)('7078). Because both cases deal with at least one print head module comprising at least two print head integrated circuits and their associated controller and power supply, etc. Below is a table of comparison between claims of both cases to indicate the obviousness of the one over the other.

10/760,191	**7,077,505**
1. A printhead assembly, comprising: at least one printhead module comprising at least two printhead integrated circuits, each of which has nozzles formed therein for delivering printing fluid onto the surface of print media, a support member supporting and carrying the printing fluid for the at least two printhead integrated circuits, and an electrical connector for connecting electrical power signals to the at least two printhead integrated circuits from both ends of the printhead assembly; and a casing in which the at least one printhead module is removably mounted. **2**. A printhead assembly according to claim 1, further comprising a plurality of longitudinally extending electrical conductors arranged within the casing to provide power from a power supply to the at least two printhead integrated circuits via the electrical connector from both ends of the printhead assembly. **5**. A printhead assembly according to claim 1, further comprising drive electronics incorporating at least one controller for controlling the printing operation of at least one of the at least two printhead integrated circuits.	**1**. A printhead assembly, comprising: at least one printhead module comprising at least two printhead integrated circuits, each of which has nozzles formed therein for delivering printing fluid onto the surface of print media, a support member supporting and carrying the printing fluid for the at least two printhead integrated circuits, and an electrical connector for connecting electrical signals to the at least two printhead integrated circuits; drive electronics incorporating at least one controller for controlling the printing operation of at least one of the at least two printhead integrated circuits; a plurality of longitudinally extending electrical conductors arranged to provide power from a power supply to the drive electronics and the at least two printhead integrated circuits; and a casing in which the at least one printhead module, the drive electronics and the plurality of electrical conductors are removably mounted, wherein the assembly is arranged so that the at least one print head module is removable from the assembly upon removal of the drive electronics and the electrical conductors.
6. A print head assembly according to claim 5, further comprising a plurality of longitudinal extending electrical conductors arranged within the casing to provided power from a power supply to the at least two print head integrated circuits and the drive electronics via the electrical conductor from both ends of the print head assembly.	**2.** A print head assembly according to claim 1, wherein the power from the plurality of electrical conductors is delivered to the drive electronics and the at least two print head integrated circuits via the electrical conductor.
3. A printhead assembly according to claim 2, wherein the plurality of longitudinally extending electrical conductors are arranged as two groups of electrical conductors respectively	**5**. A printhead assembly according to claim 1, wherein the plurality of longitudinally extending electrical conductors are arranged as two groups of electrical conductors respectively

connected to the power supply at respective ends of the printhead assembly, respective ones of electrical conductors of the two groups of electrical conductors being connected together at abutting regions intermediate the ends of the printhead assembly. **7.** A print head assembly according to claim 6, wherein the plurality of longitudinally extending electrical conductors are arranged as two groups of electrical conductors respectively connected to the power supply at respective ends of the print head Assembly, respective ones of electrical conductors of the two groups of electrical conductors being connected together at abutting regions intermediate the ends of the print head assembly	connected to the power supply at respective ends of the printhead assembly, respective ones of electrical conductors of the two groups of electrical conductors being connected together at abutting regions intermediate the ends of the printhead assembly.
4. A printhead assembly according to claim 3, wherein the abutting regions of the individual electrical conductors are arranged in overlapping relationship. **8**. A printhead assembly according to claim 7, wherein the abutting regions of the individual electrical conductors are arranged in overlapping relationship.	**6**. A printhead assembly according to claim 5, wherein the abutting regions of the individual electrical conductors are arranged in overlapping relationship.
9. A printhead assembly according to claim 1, wherein: the at least one printhead module is formed as a unitary arrangement of the at least two printhead integrated circuits, the support member, the electrical connector, and at least one fluid distribution member mounting the at least two printhead integrated circuits to the support member; and the support member has at least one longitudinally extending channel for carrying the printing fluid for the printhead integrated circuits and includes a plurality of apertures extending through a wall of the support member arranged so as to direct the printing fluid from the at least one channel to associated nozzles in both, or if more	**7**. A printhead assembly according to claim 1, wherein: the at least one printhead module is formed as a unitary arrangement of the at least two printhead integrated circuits, the support member, the electrical connector, and <u>at least two fluid distribution members</u> each mounting one of the at least two printhead integrated circuits to the support member; and the support member has at least one longitudinally extending channel for carrying the printing fluid for the printhead integrated circuits and includes a plurality of apertures extending through a wall of the support member arranged so as to direct the printing fluid from the at least one channel to associated nozzles in both,

than two, all of the printhead integrated circuits by way of respective ones of the fluid distribution members.	or if more than two, all of the printhead integrated circuits by way of respective ones of the fluid distribution members.

Followings are discussions of claims:

In regard to:

Claim 1:

The subject matters of at least one print head module, at least two print head integrated circuits, a support member, electrical connector and a casing and their functions/limitations are all the same as those in the US Pat. 7,077,505.

The device of the US Pat. 7,077,505 DIFFERS from claim 1 of the instant application in that it does not teach:

the electrical connector for connecting electrical power signals to the at least two printhead integrated circuits from both ends of the printhead assembly.

Silverbrook et al. ('7078) teach a connector arrangement (115, fig. 30) comprising a power supply connector (116, fig. 30), which can be seen is disposed at both end of the print head assembly (10, figs. 37, 38A and 38B), refer to page 11, [0177], page 12 [0181] and [0182], and page 13 [0195].

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the device of co-pending application 10/760,234 to include the electrical connector for connecting electrical power signals to the at least two printhead integrated circuits from both ends of the printhead assembly as taught by Silverbrook et al. ('7078) for the purpose of minimizing power loss.

Claims 2 and 6:

As to claim 2, a plurality of longitudinal extending electrical conductors in this claim corresponds to the plurality of longitudinally extending electrical conductors portion in claim 1 of the US pat. 7,077,505.

As to claim 6, this claim has the drive electronics in addition to the print head integrated circuits, which all need power from a power supply. This is obvious, since any electronics devices require power supply so as to be operated in their design functions.

Claims 3 and 7:

Corresponding to claim 5 of the US Pat. 7,077,505.

Claims 4 and 8:

Corresponding to claim 6 of the US Pat. 7,077,505.

Claim 5:

Corresponding to the drive electronics portion in claim 1 of the US Pat. 7,077,505.

Claim 9:

Corresponding to claim 7 of the US Pat. 7,077,505. The difference is:

claim 7 of the US Pat. 7,077,505 has "at least two fluid distribution members each mounting one of the at least two print head integrated circuits to the support member", while claim 9 of the instant application has "at least one fluid distribution member mounting the at least two printhead integrated circuits to the support member".

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to mount a fluid distribution member in one of each of the print head integrated circuits, since it has been held that constructing a formerly

integral structure in various elements (i.e., two fluid distribution members instead of one) involves only routine skill in the art, refer to MPEP 2144.04 V C.

Response to Arguments

3. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

Co-pending application 10/760,234 has now been patented, patent number is US 7,077,505 (**will not available until July 18, 2006**).

In an obvious type double patent rejection with a secondary reference, the contents of the claims of both the instant application and the patent are to be used for comparison to indicate their obviousness. The description or the specification of the secondary reference is to be used to address the deficiency of those subject matter(s)/limitation recited in the claim(s) of the instant application that the patent do/does not teach. This situation is similar to a US 35 U.S.C. 103 (a) rejection.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shih-wen Hsieh whose telephone number is 571-272-2256. The examiner can normally be reached on 7:30AM -5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, V. Patel can be reached on 571-272-2458. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shih-wen Hsieh
Primary Examiner
Art Unit 2861

SWH

July 5, 2006